

REMARKS

Claims 1-21 and 26-40 (of which claims 1, 9, 14, 19, 26, 31, and 34 are independent) were pending as of the mailing date of the office action. Claims 1, 9, and 14 have been amended. Favorable reconsideration of the office action mailed April 9, 2007 is respectfully requested in view of the foregoing amendments and the following remarks.

Claim rejections – 35 U.S.C. § 112

Claims 1 and 31 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In rejecting claims 1 and 31, the examiner asserted that “The word “may” in claim 1, line 8; in claim 31, line 9 the word “may” is unclear whether the previous lock level can be associated with other processes or cannot be associated with other processes. Thus, word “may” is being indefinite for failing to particularly point out distinctly claim the subject matter which applicant regards as the invention.”

The applicant disagrees. It is clear the word “may” in claim 1 indicates that a previous lock level can be associated with other processes when the previous lock level associated with the particular process is released. Claim 31 is also definite for similar reasons.

Without conceding the Examiner's position, in order to expedite issuance of a patent, the Applicant has amended claims 1 and 31.

Claim rejections – 35 U.S.C. § 101

Claims 1-8, 14-18, and 39 were rejected under 35 U.S.C. 101 because the language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practice application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

The Applicant disagrees with the Examiner's interpretation of what is required under 35 U.S.C. § 101. Claims 1-8, 14-18, and 39 are directed to methods that produce tangible results,

e.g., scheduling access to a database by multiple processes, and controlling access to records in a database by processes running in parallel, all of which are not abstract but real.

Without conceding the Examiner's position, in order to expedite issuance of a patent, the Applicant has amended claims 1, 9, and 14.

Claim rejections – 35 U.S.C. § 103

Claims 1-21 and 26-40 were rejected under 35 U.S.C. 103(a) as being unpatentable over Brenner (US 2002/0078119) in view of Frank (US 5,790,851). Claims 1-21 and 26-40 were also rejected under 35 U.S.C. 103(a) as being unpatentable over Brenner in view of Mckenney (US 6,823,511).

Claims 1-8 and 31-33

In rejecting claims 1 and 31 over Brenner and Frank, the Examiner acknowledges that Brenner does not disclose "the particular process repeatedly attempting to associate the particular process with a lower lock level, and if the particular process has been successfully associated with the lower lock level, releasing a previous lock level associated with the particular process so that the previous lock level may be associated with other processes," as recited in claim 1, but contends that what is missing in Brenner is disclosed in Frank.

The Examiner's rejection is improper for several reasons. In her rejection, the Examiner has quoted the claim limitation out of context. The Examiner, not being able to find any reference that discloses the limitation quoted above, divided the limitation into two parts, and asserted that Frank discloses "the particular process repeatedly" and Brenner discloses "attempting to associate the particular process with a lower lock level, and if the particular process has been successfully associated with the lower lock level, releasing a previous lock level associated with the particular process so that the previous lock level may be associated with other processes."

It is improper for the Examiner to arbitrarily divide a claim limitation into two parts, and assert that the limitation is made obvious by a first reference that discloses a first part of the limitation and a second reference that discloses a second part of the limitation. It is particularly improper for the Examiner to divide the clause "the particular process repeatedly attempting to

associate the particular process with a lower lock level” into two parts: “the particular process repeatedly” and “attempting to associate the particular process with a lower lock level,” and then reject these two parts over two different references. Rather, the fact that the Examiner is unable to find any reference that discloses the claim limitation indicates that the claim invention including this limitation is novel and not obvious.

In claim 1, it is the particular process that repeatedly attempts to associate itself with a lower lock level. Neither Brenner nor Frank discloses this feature. Frank discloses an arbitration mechanism 52 that intercepts calls from processes 1-n and maintains a queue 220, which contains a listing of all processes and their reservation identifiers that have indicated that they require access to the lock but have not been granted the lock (col. 6, lines 53-57 and col. 7, lines 30-33). A process can determine its position in the queue by comparing count values (col. 7, lines 52-55). In Frank, a process does not repeatedly attempt to associate itself with a lower lock level. Rather, it is the arbitration mechanism 52 that repeatedly requests access to a shared resource lock and updates the queue.

As discussed in Applicant's “Reply to Action Dated June 28, 2006,” Brenner discloses that each of the processes that are woken up checks to see whether the lock is available, but the process does not repeatedly attempt to associate itself with a lower lock level, or move down its position within the queue. In Brenner, a queue manager manages the queue and moves the processes down the queue, but the individual processes do not attempt to move themselves. (FIG. 4 and paragraph [0055])

The rejection of claims 1 and 31 over Brenner and McKenney is improper for at least the reasons discussed above. McKenney also does not disclose or suggest “the particular process repeatedly attempting to associate the particular process with a lower lock level,” as recited in claim 1. The section (col. 2, lines 35-55) of McKenney quoted by the Examiner adds nothing to what is already disclosed in Brenner. Column 2, lines 35-55 of McKenney discloses a locking mechanism in which when a first processor acquires a mutual exclusion lock and writes to a counter, a second processor must wait until the lock is released before it can write to the counter. Thus, the combination of McKenney and Brenner does not disclose or suggest “the particular process repeatedly attempting to associate the particular process with a lower lock level,” as recited in claim 1.

Claims 2 to 8 are patentable for at least the same reasons as those applied to claim 1.

Claim 31 is patentable for at least reasons similar to those applied to claim 1.

Claims 32 and 33 are patentable for at least the same reasons as those applied to claim 31.

Claims 9-13 and 26-30

The combination of Brenner and Frank, or Brenner and McKenney, do not disclose or suggest "second and third processes each repeatedly attempting to associate itself with a lower lock level," as recited in claim 9, for at least reasons similar to those applied to claim 1.

Claims 10-13 are patentable for at least the same reasons as those applied to claim 9.

Claim 26 is patentable for at least reasons similar to those applied to claim 9.

Claims 27 to 30 are patentable for at least the same reasons as those applied to claim 26.

Claims 14-18 and 34-38

The combination of Brenner and Frank, or Brenner and McKenney, do not disclose or suggest "each of the processes not currently associated with a lowest lock level repeatedly attempting to associate itself with a lower lock level," as recited in claim 14, for at least reasons similar to those applied to claim 1.

Claims 15-18 are patentable for at least the same reasons as those applied to claim 14.

Claim 34 is patentable for at least reasons similar to those applied to claim 14.

Claims 35 to 38 are patentable for at least the same reasons as those applied to claim 34.

Claims 19-21

Brenner does not disclose or suggest "each of the different processes having a lock level other than the particular lock level repeatedly attempting to associate itself with another lock level that is closer to the particular lock level," as recited in claim 19, for at least reasons similar to those applied to claim 1.

Claims 20 and 21 are patentable for at least the same reasons as those applied to claim 19.

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

By responding in the foregoing remarks only to particular positions taken by the examiner, the applicant does not acquiesce with other positions that have not been explicitly addressed. In addition, the applicant's selecting some particular arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist. Finally, the applicant's decision to amend or cancel any claim should not be understood as implying that the applicant agrees with any positions taken by the examiner with respect to that claim or other claims.

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Respectfully submitted,

Date: June 4, 2007 _____

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